



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J.R. "JOEY" HOPKINS  
SECRETARY

November 1, 2023

MEMORANDUM TO: Division Environmental and Construction Units

FROM: *mat* Michael A. Turchy, ECAP Group Leader  
Environmental Analysis Unit

SUBJECT: Environmental Permits for the Improvements to Interstate 485 from I-77  
to US 74 in Mecklenburg County, Division 10, **TIP I-5507**

Please find enclosed the following permits for this project:

Agency	Permit Type	Permit Expiration
US Army Corps of Engineers Section 404 Clean Water Act Permit	Regional General Permit 50 (dated 10/24/23) <i>Replaces previous 12/18/19, 11/12/20, and 9/7/21 issuances</i>	May 25, 2025
NC Division of Water Resources Section 401 Water Quality Certification	General Cert. No. 4135 [RGP50] (dated 10/2/23) <i>Previous Certifications (12/2/19, 9/21/20 and 10/22/21) remain applicable except where superseded by 2023 modification</i>	May 25, 2025

Work is authorized by the above referenced permit provided it is accomplished in strict accordance with the permitted plans.

The Environmental Coordination and Permitting Group or the Division Environmental Office must be consulted if any deviation from the permit(s) is required.

The General Conditions and Certifications for Nationwide and Regional Permits can be referenced at:  
[https://xfer.services.ncdot.gov/pdea/PermIssued/\\_General\\_Conditions\\_and\\_Certifications/](https://xfer.services.ncdot.gov/pdea/PermIssued/_General_Conditions_and_Certifications/)

# PROJECT COMMITMENTS

T.I.P Project No. I-5507  
I-485 (Charlotte Outer Loop) Express Lanes  
From I-77 to US 74 (Independence Boulevard)  
Mecklenburg County  
WBS Element 43609.1.1

## COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

### **Division 10**

- There are several planned greenways (along Sugar Creek, Kings Branch, and Little Sugar Creek) under development in the project study area. NCDOT Division 10 will coordinate with Mecklenburg County Park and Recreation and the Charlotte Regional Transportation Planning Organization regarding project scheduling and/or design requirements necessary to accommodate these greenways.
- NCDOT Division 10 will coordinate with Mecklenburg County Park and Recreation prior to bridge construction over the existing McMullen Creek and McAlpine Creek Greenways regarding accommodations for greenway users during construction.
- This project involves construction activities on or adjacent to FEMA-regulated streams. Therefore, the Division will submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.
- NCDOT Division 10 will coordinate prior to construction with Charlotte Area Transit System (CATS) to allow for necessary planning regarding mass transit routes/schedules and commuter programs in the project area.
- Site 31MK273\*\* (Cemetery at John Dinkins Farm) is the surviving remnant of a site listed on the National Register of Historic Places. No project activities are to take place within the limits of the cemetery, including but not limited to the staging/storage of materials and/or equipment and vehicles. If Site 31MK273\*\* is impacted in any way, additional consultation with the State Historic Preservation Office and the Charlotte-Mecklenburg Historic Landmarks Commission will be required. The design is staying within the existing right-of-way and will not impact the Cemetery at John Dinkins Farm).

### **NCDOT Hydraulics Unit**

- During final design, the NCDOT Hydraulics Unit will coordinate with the Charlotte-Mecklenburg Storm Water Services Department and NC Floodplain Mapping Program for approval of any Conditional Letter of Map Revision (CLOMR) and subsequent Letter of Map Revision (LOMR). (There is no CLOMR/LOMR required as part of this project).

**City of Charlotte/NCDOT Local Programs Management Office**

- The City of Charlotte and NCDOT LPMO will complete a municipal agreement prior to construction for additional pedestrian and bicycle accommodations on bridges to be replaced carrying arterial or local streets over or under I-485 in the project area.

**COMMITMENTS FROM PERMITTING**

See 404 Permit and 401 Certification for special conditions developed during permitting.

**U.S. ARMY CORPS OF ENGINEERS**  
**WILMINGTON DISTRICT**

Action Id. SAW-2013-02330 County: Mecklenburg U.S.G.S. Quad: NC-Weddington

**GENERAL PERMIT (REGIONAL AND NATIONWIDE) VERIFICATION**

Permittee: North Carolina Department of Transportation  
attn: Ms. Erin Cheely  
Address: 1598 Mail Service Road  
Raleigh, NC 27699-1598  
Telephone Number: (919) 707-6008  
E-mail: ekcheely@ncdot.gov

Size (acres)	<u>N/A</u>	Nearest Town	<u>Charlotte</u>
Nearest Waterway	<u>McAlpine Creek</u>	River Basin	<u>Lower Catawba</u>
USGS HUC	<u>03050103</u>	Coordinates	Latitude: <u>35.064018</u> Longitude: <u>-80.815709</u>

Location description: This project is located along the existing I-485 corridor between the I-485 interchange with I-77 and US 74 (Independence Boulevard) in City of Charlotte and Matthews, Mecklenburg County, North Carolina.

Description of projects area and activity: This revised verification (Modification #3) authorizes the modified construction of NCDOT I-5507 which is the construction of one Managed Lane in each direction (both inner loop and outer loop) in the existing median of I 485, between I 77 and US 74 (Independence Boulevard). The project also includes the construction of at-grade ingress and egress access to the Managed Lanes, as well as direct connector ramps, and the construction of connectors to and from the Managed Lanes to local side streets. This project will include a total stream impact of 3,948 linear feet (lf) and total impact to 0.83 acres of wetland. Specifically, 1,494 lf permanent impact to streams from placement of fill, placement of 1,325 lf of stream bank stabilization, maintenance of 500 lf of existing stream bank stabilization, temporary impact to 629 lf of stream channel, permanent impact to 0.56 acre of wetlands from placement of fill and 0.27 acre of mechanized wetland clearing.

Applicable Law(s): ☒ Section 404 (Clean Water Act, 33 USC 1344)  
☐ Section 10 (Rivers and Harbors Act, 33 USC 403)

Authorization: **Regional General Permit 50 (RGP-50)**

**SEE ATTACHED NWP GENERAL, REGIONAL, AND/OR SPECIAL CONDITIONS**

Your work is authorized by the above referenced permit provided it is accomplished in strict accordance with the attached Conditions, your application signed and dated 8/24/2023, and the enclosed plans Sheets 1, 18-23, 73-77, 84, 85, 88, 89 & 112-115 of 115, entitled, "NCDOT TIP Project: I-5507 Mecklenburg County" revised July 2023. Any violation of the attached conditions or deviation from your submitted plans may subject the permittee to a stop work order, a restoration order, a Class I administrative penalty, and/or appropriate legal action.

This verification will remain valid until the expiration date identified below unless the nationwide and/or regional general permit authorization is modified, suspended or revoked. If, prior to the expiration date identified below, the nationwide and/or regional general permit authorization is reissued and/or modified, this verification will remain valid until the expiration date identified below, provided it complies with all requirements of the modified nationwide permit. If the nationwide and/or regional general permit authorization expires or is suspended, revoked, or is modified, such that the activity would no longer comply with the terms and conditions of the nationwide permit, activities which have commenced (i.e., are under construction) or are under contract to commence in reliance upon the nationwide and/or regional general permit, will remain authorized provided the activity is completed within twelve months of the date of the nationwide and/or regional general permit's expiration, modification or revocation, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend or revoke the authorization.

Activities subject to Section 404 (as indicated above) may also require an individual Section 401 Water Quality Certification. You should contact the NC Division of Water Resources (telephone 919-807-6300) to determine Section 401 requirements.

For activities occurring within the twenty coastal counties subject to regulation under the Coastal Area Management Act (CAMA), prior to beginning work you must contact the N.C. Division of Coastal Management **Morehead City, NC, at (252) 808-2808.**



This Department of the Army verification does not relieve the permittee of the responsibility to obtain any other required Federal, State or local approvals/permits. If there are any questions regarding this verification, any of the conditions of the Permit, or the Corps of Engineers regulatory program, please contact **Stephen A. Brumagin** at **(704) 798 6471** or **[stephen.a.brumagin@usace.army.mil](mailto:stephen.a.brumagin@usace.army.mil)**.

Monte  
Matthew

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15:33:18 -04'00'

Corps Regulatory Official: \_\_\_\_\_ Date: **10/24/2023**  
Expiration Date of Verification: **5/25/2025**

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=136:4:0](http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0)

Copy furnished:

July 2023 Revised plans  
401 WQC  
RGP 50

Agent: **North Carolina Department of Transportation, Division 10**  
**Mr. Joel Howard, PDEA Engineer**  
Address: **716 West Main Street**  
**Albemarle, NC 28001**  
Telephone Number: **(704) 983-4400**  
E-mail: **jmhoward@ncdot.gov**

## **SPECIAL CONDITIONS**

1. All work must be performed in strict compliance with (a) the description of work in the PCN and (b) the Wetlands and Surface Water Impact Permit Drawing(s) (Permit Plans) in the application dated April 3, 2020. Any modification to the description of work and/or the permit plans must be approved by the USACE prior to implementation.
2. The permittee shall require its contractors and/or agents to comply with the terms and conditions of this authorization letter in the construction and maintenance of this project and shall provide each of its contractors and/or agents associated with the construction or maintenance of this project with a copy of this authorization letter, all conditions, and any authorized modifications. A copy of this authorization letter, all conditions, and any authorized modifications, shall be available at the project site during construction and maintenance of this project.
3. All other special conditions associated with Corps authorization SAW-2013-02330 and subsequent modifications remain in effect.
4. In order to compensate for impacts associated with this permit, mitigation shall be provided in accordance with the provisions outlined on the most recent version of the attached Compensatory Mitigation Responsibility Transfer Forms. The requirements of these forms, including any special conditions listed on these forms, are hereby incorporated as special conditions of this permit authorization.

## Compensatory Mitigation Responsibility Transfer Form

**Permittee:** North Carolina Department of Transportation, attn: Ms. Erin Cheely

**Action ID:** SAW-2013-02330

**Project Name:** NCDOT I-5507 I-485 Managed Lanes Mecklenburg County

**County:** Mecklenburg

**Instructions to Permittee:** The Permittee must provide a copy of this form to the Mitigation Sponsor, either an approved Mitigation Bank or the North Carolina Division of Mitigation Services (NCDMS), who will then sign the form to verify the transfer of the mitigation responsibility. Once the Sponsor has signed this form, it is the Permittee's responsibility to ensure that Wilmington District Project Manager identified on page two is in receipt of a signed copy of this form before conducting authorized impacts, unless otherwise specified below. If more than one Mitigation Sponsor will be used to provide the mitigation associated with the permit, or if the impacts and/or the mitigation will occur in more than one 8-digit Hydrologic Unit Code (HUC), multiple forms will be attached to the permit, and the separate forms for each Sponsor and/or HUC must be provided to the appropriate Mitigation Sponsors.

**Instructions to Sponsor:** The Sponsor verifies that the mitigation requirements (credits) shown below have been released and are available at the identified site. By signing below, the Sponsor is accepting full responsibility for the identified mitigation, regardless of whether they have received payment from the Permittee. Once the form is signed, the Sponsor must update the bank ledger and provide a copy of the signed form and the updated ledger to the Permittee, the Project Manager who issued the permit, the Bank Project Manager, and the District Mitigation Office (see contact information on page 2). The Sponsor must also comply with all reporting requirements established in their authorizing instrument.

### **Permitted Impacts and Compensatory Mitigation Requirements:**

Permitted Impacts Requiring Mitigation*			8-digit HUC and Basin: 03050103, Catawba River Basin			
Stream Impacts (linear feet)			Wetland Impacts (acres)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
118						

\*If more than one mitigation sponsor will be used for the permit, only include impacts to be mitigated by this sponsor.

Compensatory Mitigation Requirements:			8-digit HUC and Basin: 03050103, Catawba River Basin			
Stream Mitigation (credits)			Wetland Mitigation (credits)			
Warm	Cool	Cold	Riparian Riverine	Riparian Non-Riverine	Non-Riparian	Coastal
236						

**Mitigation Site Debited:** \_\_\_\_\_

(List the name of the bank to be debited. For umbrella banks, also list the specific site. For NCDMS, list NCDMS. If the NCDMS acceptance letter identifies a specific site, also list the specific site to be debited).

### ***Section to be completed by the Mitigation Sponsor***

**Statement of Mitigation Liability Acceptance:** I, the undersigned, verify that I am authorized to approve mitigation transactions for the Mitigation Sponsor shown below, and I certify that the Sponsor agrees to accept full responsibility for providing the mitigation identified in this document (see the table above), associated with the USACE Permittee and Action ID number shown. I also verify that released credits (and/or advance credits for NCDMS), as approved by the Wilmington District, are currently available at the mitigation site identified above. Further, I understand that if the Sponsor fails to provide the required compensatory mitigation, the USACE Wilmington District Engineer may pursue measures against the Sponsor to ensure compliance associated with the mitigation requirements.

**Mitigation Sponsor Name:** NCDEQ - DMS

**Name of Sponsor's Authorized Representative:** Beth Harmon

  
Signature of Sponsor's Authorized Representative

10/27/2023  
Date of Signature

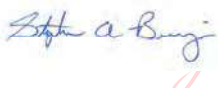
**Conditions for Transfer of Compensatory Mitigation Credit:**

- Once this document has been signed by the Mitigation Sponsor and the District is in receipt of the signed form, the Permittee is no longer responsible for providing the mitigation identified in this form, though the Permittee remains responsible for any other mitigation requirements stated in the permit conditions.
- Construction within jurisdictional areas authorized by the permit identified on page one of this form can begin only after the District is in receipt of a copy of this document signed by the Sponsor, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein. When NCDMS provides mitigation for authorized impacts conducted by the North Carolina Department of Transportation (NCDOT), construction within jurisdictional areas may proceed upon permit issuance; however, a copy of this form signed by NCDMS must be provided to the District within 30 days of permit issuance. NCDOT remains fully responsible for the mitigation until the District has received this form, confirming that the Sponsor has accepted responsibility for providing the mitigation requirements listed herein.
- Signed copies of this document must be retained by the Permittee, Mitigation Sponsor, and in the USACE administrative records for both the permit and the Bank/ILF Instrument. It is the Permittee's responsibility to ensure that the District Project Manager (address below) is provided with a signed copy of this form.
- If changes are proposed to the type, amount, or location of mitigation after this form has been signed and returned to the District, the Sponsor must obtain case-by-case approval from the District Project Manager and/or North Carolina Interagency Review Team (NCIRT). If approved, higher mitigation ratios may be applied, as per current District guidance and a new version of this form must be completed and included in the District administrative records for both the permit and the Bank/ILF Instrument.

**Comments/Additional Conditions:** A letter from NCDMS, confirming they are willing and able to accept the applicant's compensatory mitigation responsibility, dated 7/27/2023 was included with the preconstruction notification.

This form is not valid unless signed below by the District Project Manager and by the Mitigation Sponsor on Page 1. ***Once signed, the Sponsor should provide copies of this form along with an updated bank ledger to: 1) the Permittee, 2) the District Project Manager at the address below, 3) the Bank Manager listed in RIBITS, and 4) the Wilmington District Mitigation Office, 3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587 (or by email to [SAWMIT@usace.army.mil](mailto:SAWMIT@usace.army.mil)).*** Questions regarding this form or any of the permit conditions may be directed to the District Mitigation Office.

**USACE Project Manager:** Stephen A. Brumagin  
**USACE Field Office:** Charlotte Regulatory Office  
US Army Corps of Engineers  
8430 University Executive Park Drive, Suite 615  
Charlotte, North Carolina 28262  
**Email:** [stephen.a.brumagin@usace.army.mil](mailto:stephen.a.brumagin@usace.army.mil)

  
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**USACE Project Manager Signature**

10/24/2023

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**Date of Signature**

Current Wilmington District mitigation guidance, including information on mitigation ratios, functional assessments, and mitigation bank location and availability, and credit classifications (including stream temperature and wetland groupings) is available at <http://ribits.usace.army.mil>.

ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

RICHARD E. ROGERS, JR.

Director

NORTH CAROLINA  
Environmental Quality

September 26, 2023  
Mecklenburg County  
NCDWR Project No. 20191337v4  
TIP I-5507

Mr. Jamie Lancaster, P.E.  
Environmental Analysis Unit  
North Carolina Department of Transportation  
1598 MSC  
Raleigh, NC 27699-1598

**Subject: APPROVAL of Modification to 401 WATER QUALITY CERTIFICATION with ADDITIONAL CONDITIONS for TIP I-5507, I-485 Improvements from I-77 to US 74 (Independence Blvd). NCDWR Project No. 20191337v4.**

Dear Mr. Lancaster:

You have our approval, in accordance with your application dated August 24, 2023, and with the conditions listed below, to modify the referenced 401 Certification to include the revised impacts as described below. This Certification replaces the original issued on December 2, 2019, revised on September 21, 2020, and revised again on October 22, 2021.

**Stream Impacts (linear feet) in the Catawba River Basin.**

Site		Perennial		Intermittent			Totals
		Permanent	Temporary	Permanent		Temporary	
				Bank Stabilization	Fill		
7	previous	-	-	-	-	680	680
	revised	-	-	200 + 500*	100	-	800
8	previous	-	-	10	7	-	17
	revised	-	-	-	7	-	7
30	previous	-	-	-	-	33	33
	revised	-	-	-	13	20	33
31	previous	-	-	20	3	10	33
	revised	-	-	19	4	10	33
32	previous	6	20	-	-	-	26
	revised	15	24	-	-	-	39
37	previous	-	-	35	-	20	55
	revised	-	-	31	4	20	55
Totals		21	44	815	138	793	1,811

\*500 feet of bank stabilization impacts are for stream bank maintenance per the application.  
State (DWR) mitigation is not required for impact revisions.



North Carolina Department of Environmental Quality | Division of Water Resources  
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617  
919.707.9000

After reviewing your application, we have decided that the proposed impacts are covered by General Water Quality Certification (GC) Number 4135. This GC corresponds to US Army Corps of Engineers Regional General Permit 201902350. In addition, you should acquire any other federal, state or local permits before you proceed with your project including (but not limited to) Sediment and Erosion Control, Non-Discharge and Water Supply Watershed regulations. This approval will expire with the corresponding 404 permit.

This approval is valid solely for the purpose and design described in your application (unless modified below). Should your project change, you must notify the NCDWR and submit a new application. If the property is sold, the new owner must be given a copy of this Certification and approval letter and is thereby responsible for complying with all the conditions. If total wetland fills for this project (now or in the future) exceed one tenth acre, or of total impacts to streams (now or in the future) exceed 300 linear feet, compensatory mitigation may be required as described in 15A NCAC 2H .0506 (h) (6) and (7). For this approval to remain valid, you must adhere to the conditions listed in the attached certification(s) and any additional conditions listed below.

### **Condition(s) of Certification:**

#### **Project Specific Conditions**

1. All the authorized activities and conditions associated with the original Water Quality Certification dated December 2, 2019, revised on September 21, 2020, and revised again on October 22, 2021, still apply except where superseded by this Certification. [15A NCAC 02H.0506(b)(3) and (c)(3)]
2. All work in or adjacent to stream waters shall be conducted per approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual. [15A NCAC 02H.0506(b)(3) and (c)(3)]

This approval and its conditions are final and binding unless contested [G.S. 143-215.5]. Please be aware that impacting waters without first applying for and securing the issuance of a 401 Water Quality Certification violates Title 15A of the North Carolina Administrative Code (NCAC) 2H .0500. Title 15A NCAC 2H .0500 requires certifications pursuant to Section 401 of the Clean Water Act whenever construction or operation of facilities will result in a discharge into navigable waters, including wetlands, as described in 33 Code of Federal Regulations (CFR) Part 323. It also states any person desiring issuance of the State certification or coverage under a general certification required by Section 401 of the Federal Water Pollution Control Act shall file with the Director of the North Carolina Division of Water Quality. Pursuant to G.S. 143-215.6A, these violations and any future violations are subject to a civil penalty assessment of up to a maximum of \$25,000.00 per day for each violation.

This Certification can be contested as provided in Chapter 150B of the North Carolina General Statutes by filing a Petition for a Contested Case Hearing (Petition) with the North Carolina Office of Administrative Hearings (OAH) within sixty (60) calendar days. Requirements for filing a Petition are set forth in Chapter 150B of the North Carolina General Statutes and Title 26 of the North Carolina Administrative Code. Additional information regarding requirements for filing a Petition and Petition forms may be accessed at <http://www.ncoah.com/> or by calling the OAH Clerk's Office at (919) 431-3000.

A party filing a Petition must serve a copy of the Petition on:

William F. Lane, General Counsel  
Department of Environmental Quality  
1601 Mail Service Center  
Raleigh, NC 27699-1601


If the party filing the Petition is not the permittee, then the party must also serve the recipient of the Certification in accordance with N.C.G.S 150B-23(a).





This letter completes the review of the Division under section 401 of the Clean Water Act and 15A NCAC 02H .0500. Please contact Dave Wanucha at 336-403-5655 or [dave.wanucha@deq.nc.gov](mailto:dave.wanucha@deq.nc.gov) if you have any questions or concerns.

Sincerely,  
Signed by:

  
Richard E. Rogers Jr., Director  
Division of Water Resources

Electronic copy only distribution:

Steve Brumagin, US Army Corps of Engineers, Charlotte Field Office  
Joel Howard, NCDOT Division 10 PDEA Engineer  
Rebekah Reid, US Fish and Wildlife Service  
David McHenry, NC Wildlife Resources Commission  
Erin Cheely, NCDOT  
Michael Turchy, NCDOT  
Amanetta Somerville, USEPA



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Secretary

RICHARD E. ROGERS, JR.

Director

NORTH CAROLINA  
Environmental Quality

NCDWR Project No.: \_\_\_\_\_ County: \_\_\_\_\_

Applicant: \_\_\_\_\_

Project Name: \_\_\_\_\_

Date of Issuance of 401 Water Quality Certification: \_\_\_\_\_

**Certificate of Completion**

Upon completion of all work approved within the 401 Water Quality Certification or applicable Buffer Rules, and any subsequent modifications, the applicant is required to return this certificate to the 401 Transportation Permitting Unit, North Carolina Division of Water Resources, 1617 Mail Service Center, Raleigh, NC, 27699-1617. This form may be returned to NCDWR by the applicant, the applicant's authorized agent, **or** the project engineer. It is not necessary to send certificates from all of these.

***Applicant's Certification***

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

***Agent's Certification***

I, \_\_\_\_\_, hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

***Engineer's Certification***

\_\_\_\_\_ Partial \_\_\_\_\_ Final

I, \_\_\_\_\_, as a duly registered Professional Engineer in the State of North Carolina, having been authorized to observe (periodically, weekly, full time) the construction of the project for the Permittee hereby state that, to the best of my abilities, due care and diligence was used in the observation of the construction such that the construction was observed to be built within substantial compliance and intent of the 401 Water Quality Certification and Buffer Rules, the approved plans and specifications, and other supporting materials.

Signature \_\_\_\_\_ Registration No. \_\_\_\_\_

Date \_\_\_\_\_

Completed hard copies can be emailed to [kristilynn.carpenter@deq.nc.gov](mailto:kristilynn.carpenter@deq.nc.gov) or mailed to:

NCDEQ Transportation Permitting

1617 Mail Service Center

Raleigh NC 27699-1617



North Carolina Department of Environmental Quality | Division of Water Resources  
512 North Salisbury Street | 1617 Mail Service Center | Raleigh, North Carolina 27699-1617  
919.707.9000



STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**MECKLENBURG COUNTY**

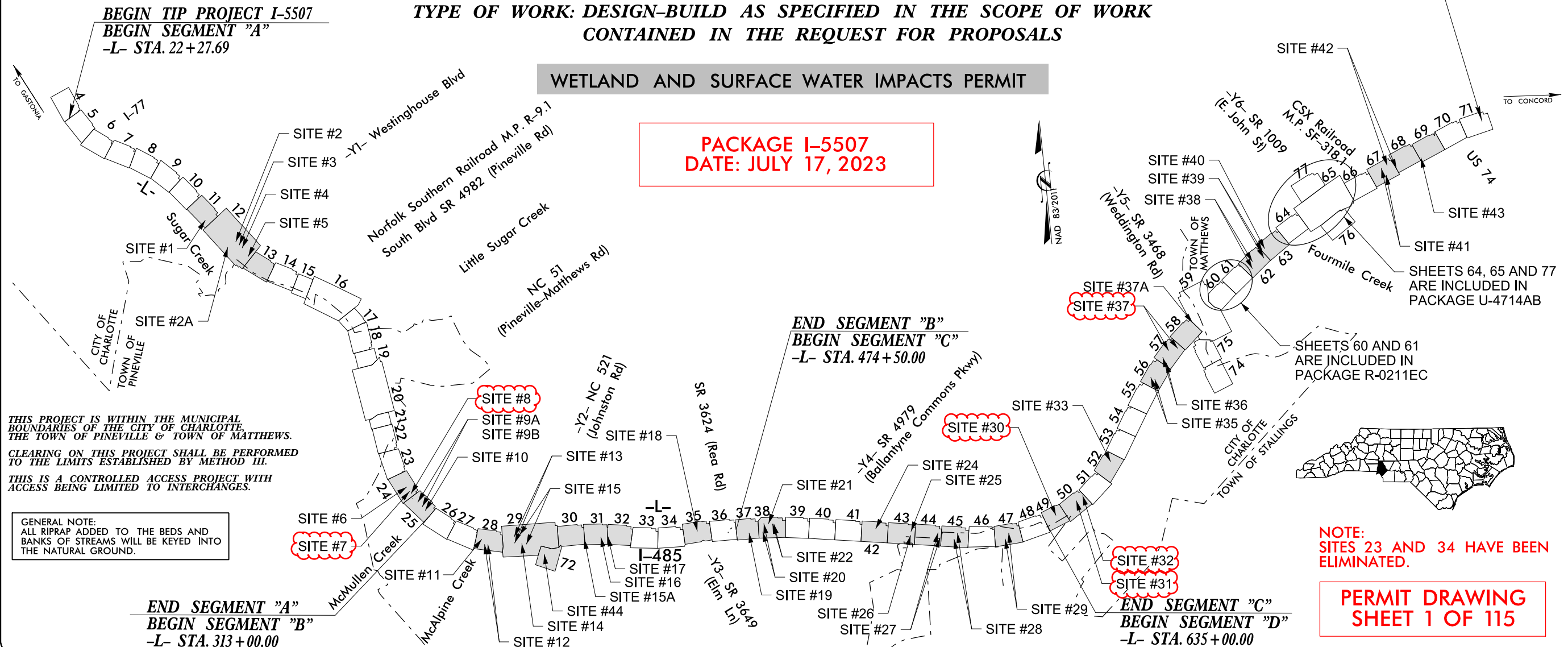
**LOCATION: I-485 FROM I-77 TO US 74 (INDEPENDENCE BOULEVARD) (I-5507); I-485 / WEDDINGTON ROAD INTERCHANGE (R-0211EC); AND I-485 / EAST JOHN STREET – OLD MONROE ROAD INTERCHANGE (U-4714AB)**

**END TIP PROJECT I-5507**  
**END SEGMENT "D"**  
**-L- STA. 947+96.48**

***TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK  
CONTAINED IN THE REQUEST FOR PROPOSALS***

## WETLAND AND SURFACE WATER IMPACTS PERMIT

PACKAGE I-5507  
DATE: JULY 17, 2023



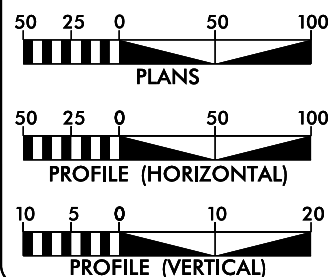
NOTE:  
SITES 23 AND 34 HAVE BEEN  
ELIMINATED.

PERMIT DRAWING  
SHEET 1 OF 115

***TIP PROJECT: I-5507***

**CONTRACT: C203970**

## GRAPHIC SCALES



### DESIGN DATA

ADT 2018 = 118,400  
ADT 2040 = 159,200  
DHV = 9 %  
D = 55 %  
T = 9 % \*  
V = 7075 MPH  
\*( TTST 4 + DUAL 5)

FUNCTIONAL CLASSIFICATION  
INTERSTATE  
STATEWIDE TIER

### PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT I-5507 = 17.137 mi

LENGTH OF STRUCTURES TIP PROJECT I-5507 = 0.395 mi  
(BASED ON 485 WB BRIDGES)

TOTAL LENGTH OF TIP PROJECT I-5507 = 17.532 mi

***NCDOT CONTACT:***

**TIM MCFADDEN, PE**  
DESIGN BUILD PROJECT ENGINEER -  
TRANSPORTATION PROGRAM MANAGEMENT UNIT

*Prepared In the Office of:*



1001 Morehead Square Dr.  
Suite 610  
Charlotte NC, 28203  
NC LIC NO. F-0165

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

2018 STANDARD SPECIFICATIONS

***RIGHT OF WAY:***  
**SEPTEMBER 18, 2018**

**LETTING DATE:**  
**SEPTEMBER 18, 2018**

**DANIEL H. BRIDGES, PE**  
*DESIGN PROJECT MANAGER*

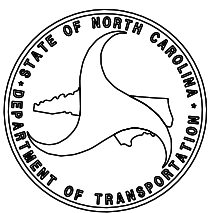
**DAVID B. GOURLEY, PE**  
**PROJECT DESIGN ENGINEER**

**HYDRAULICS ENGINEER**

***SIGNATURE:*** \_\_\_\_\_ ***P.E.***  
***ROADWAY DESIGN  
ENGINEER***

**SIGNATURE:** \_\_\_\_\_ *P.E.*

## DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA



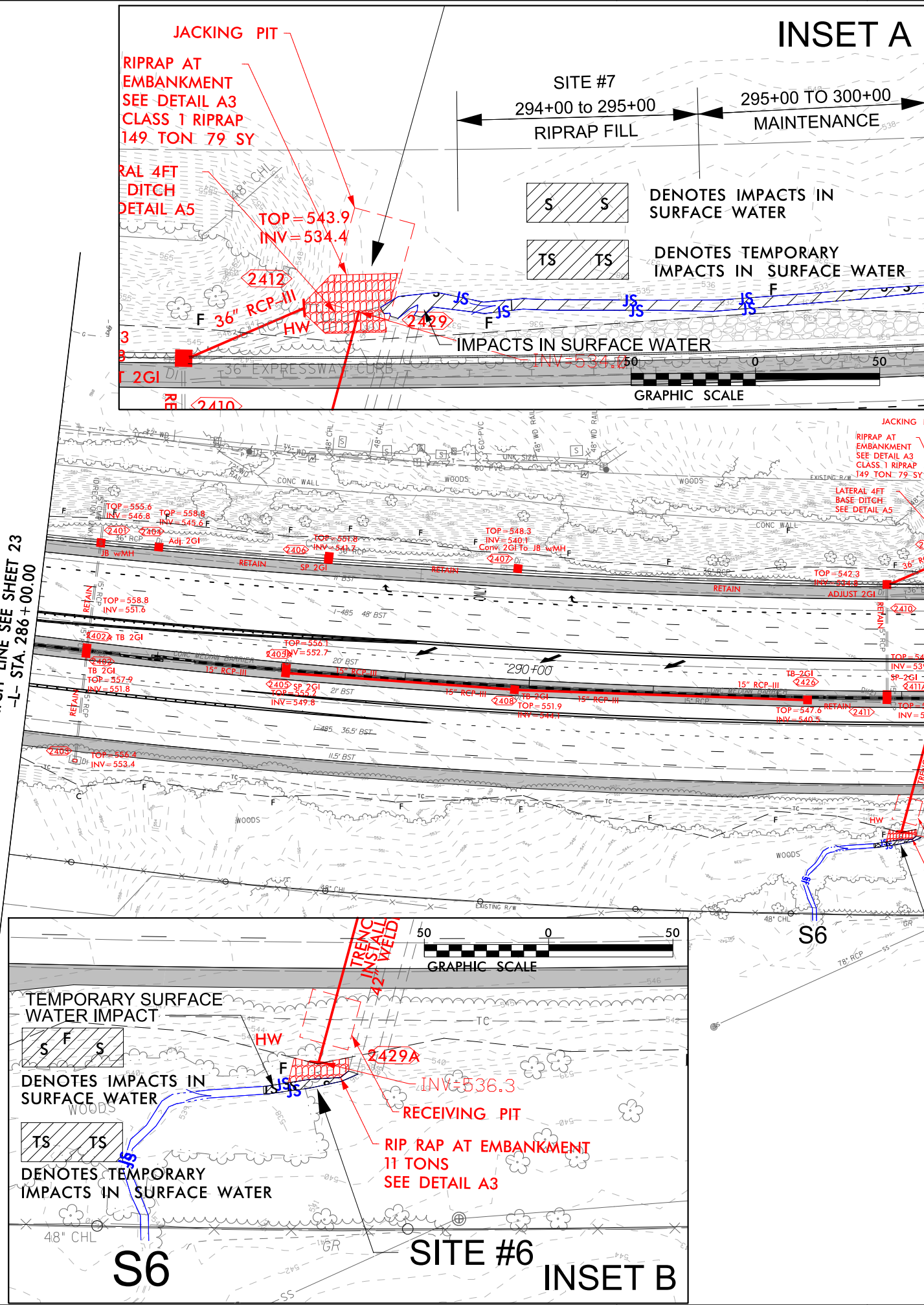




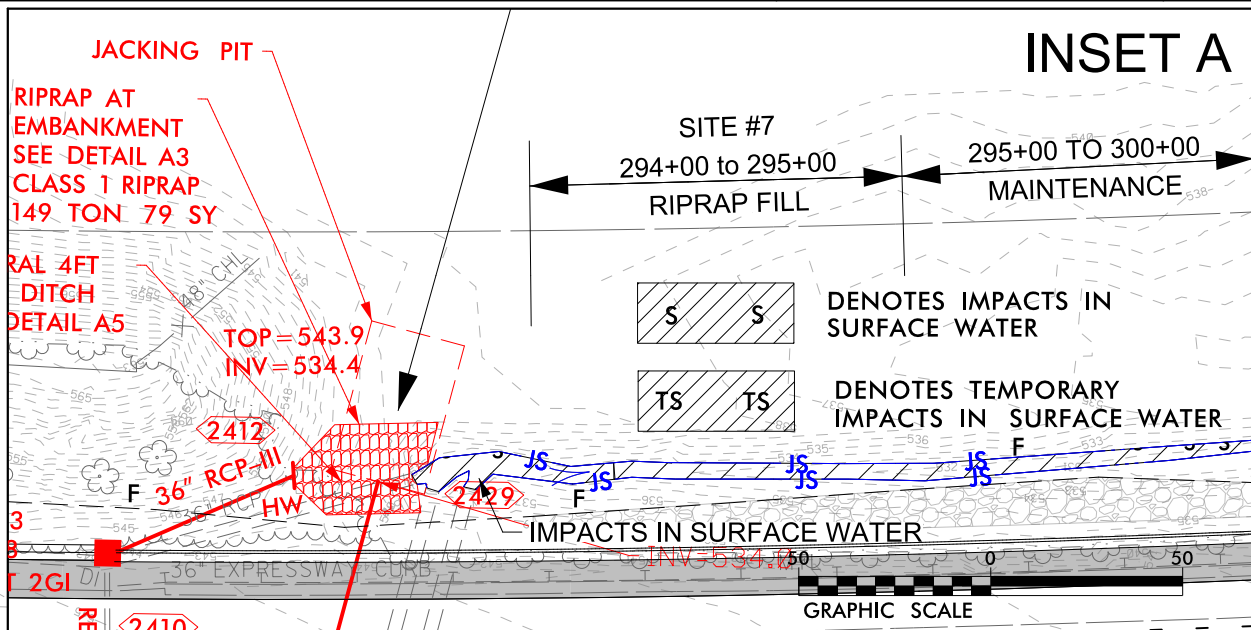
REVISIONS

MATCH LINE SEE SHEET 23  
-L- STA. 286 + 00.00

MATCH LINE SEE SHEET 25  
-L- STA. 299 + 50.00



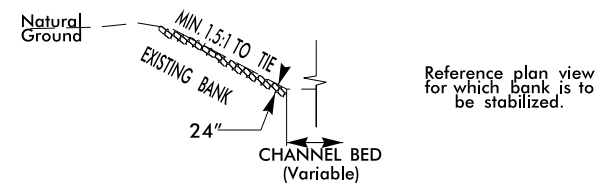
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### DETAIL A7

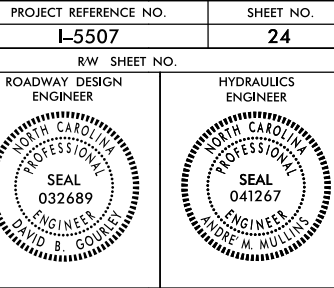
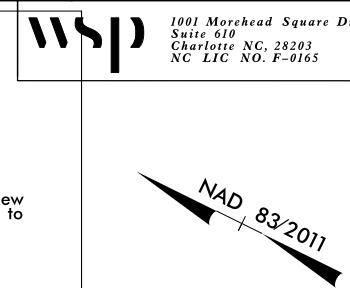
BANK STABILIZATION

(Not to Scale)



Type of Liner = Class II Riprap (KEYED IN)

L STA. 110 + 50 RT

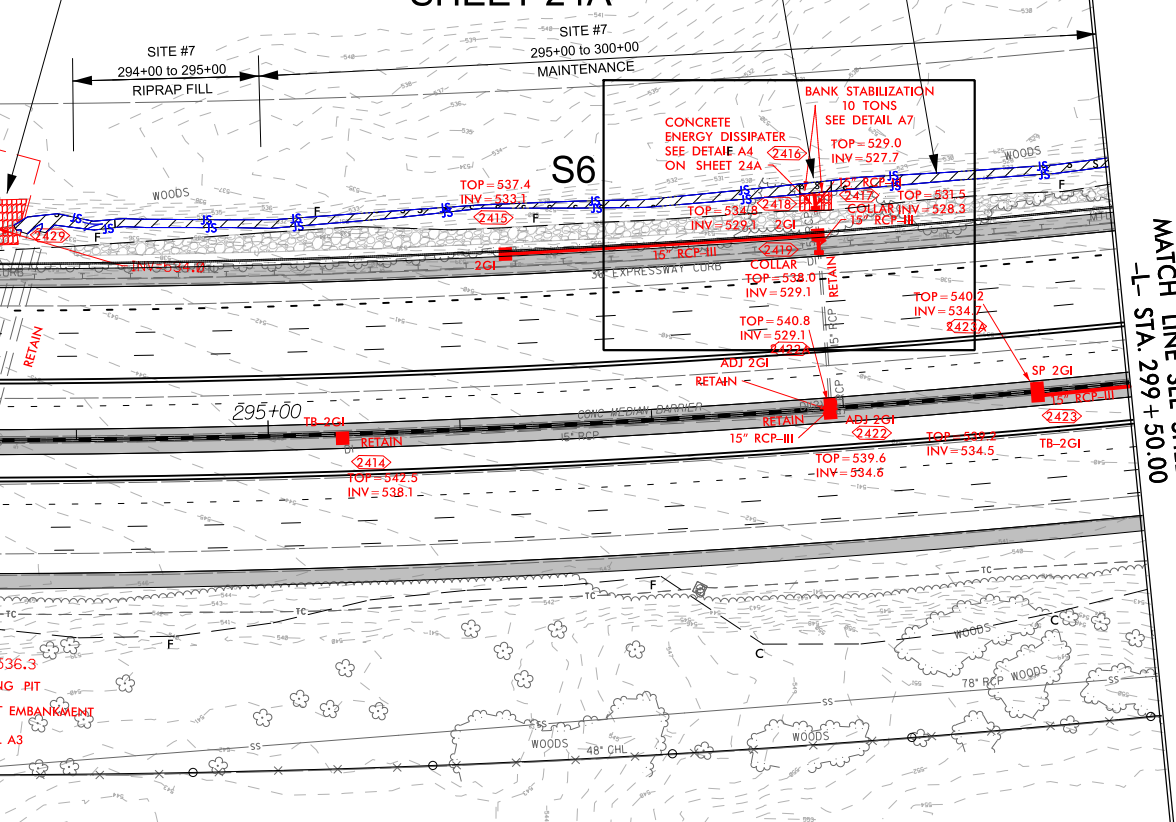


SEE SHEET 24A

SITE #6  
SEE  
INSET A

SITE #7

SITE #8

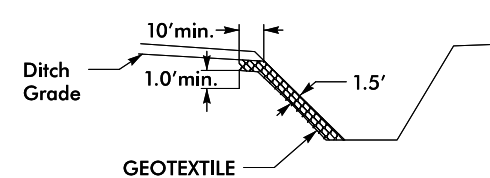


SITE #6  
SEE INSET B

### DETAIL A3

RIP RAP AT EMBANKMENT

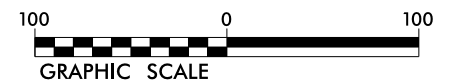
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Type of Liner = Class 2 TONS, CL See Plan Rip-Rap  
Geotextile = See Plan sy

L STA. 131 + 25 LT  
L STA. 132 + 00 LT

Revised July 2023  
**PERMIT DRAWING**  
**SHEET 19 OF 115**



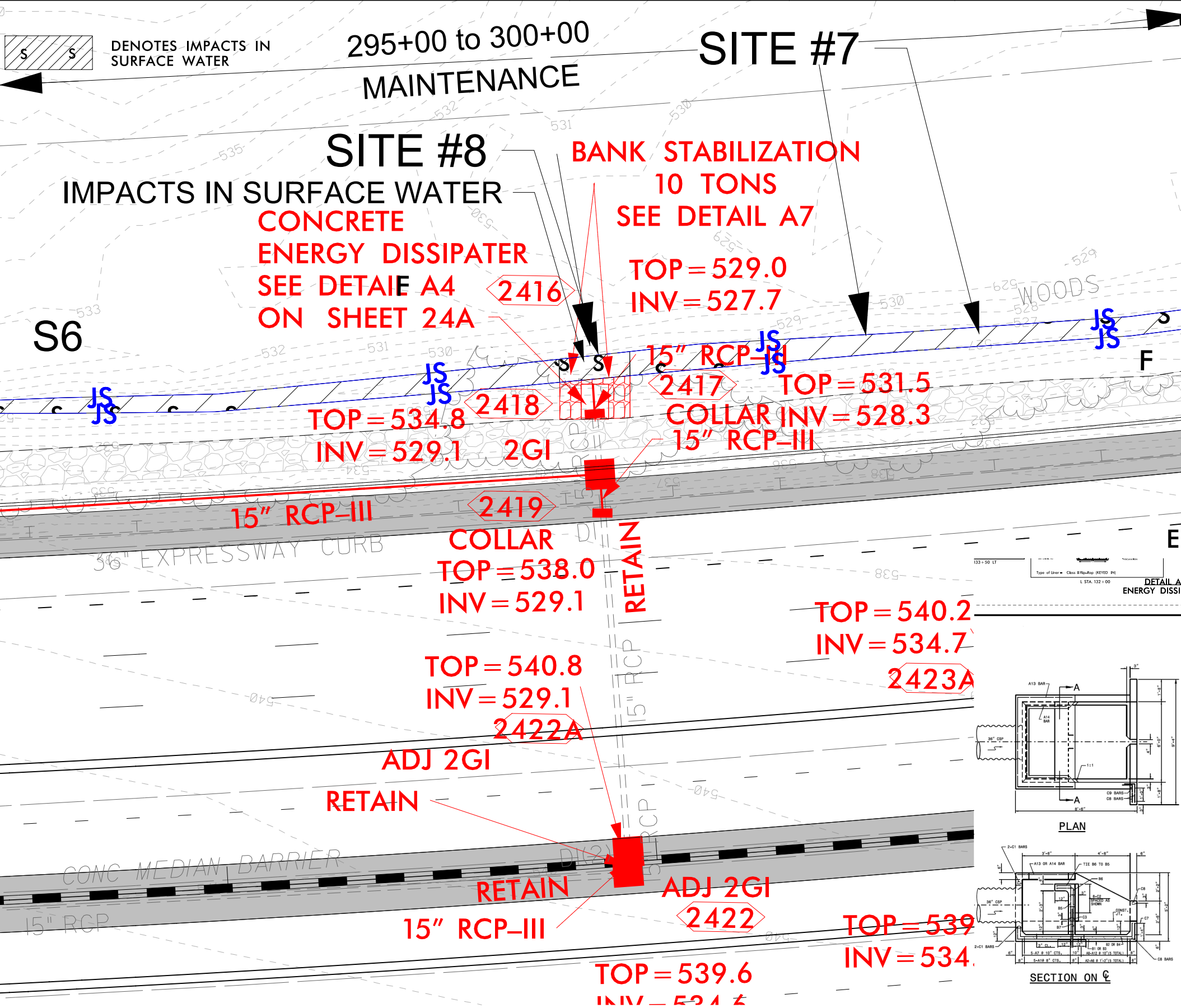




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REVISIONS

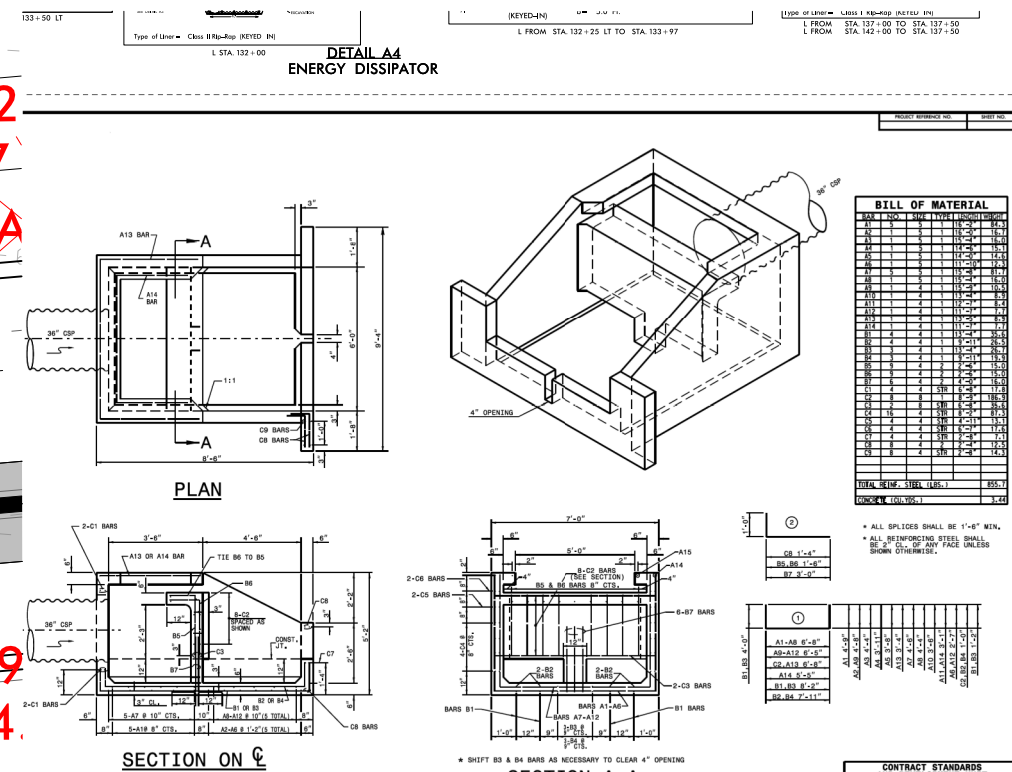


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NC LIC NO. F-0165

PROJECT REFERENCE NO.		SHEET NO.	
I-5507		24A	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	

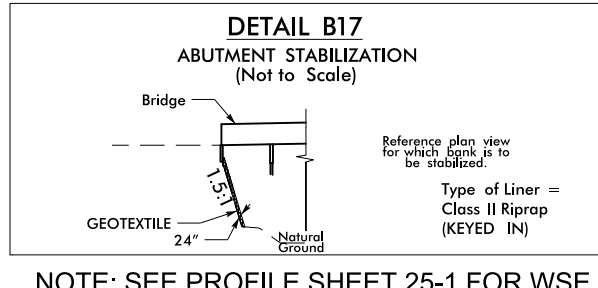
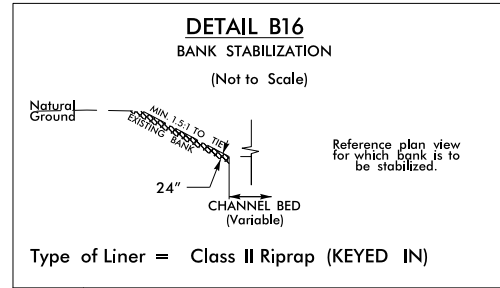
NAD 83/2011

### DETAIL A4 ENERGY DISSIPATOR

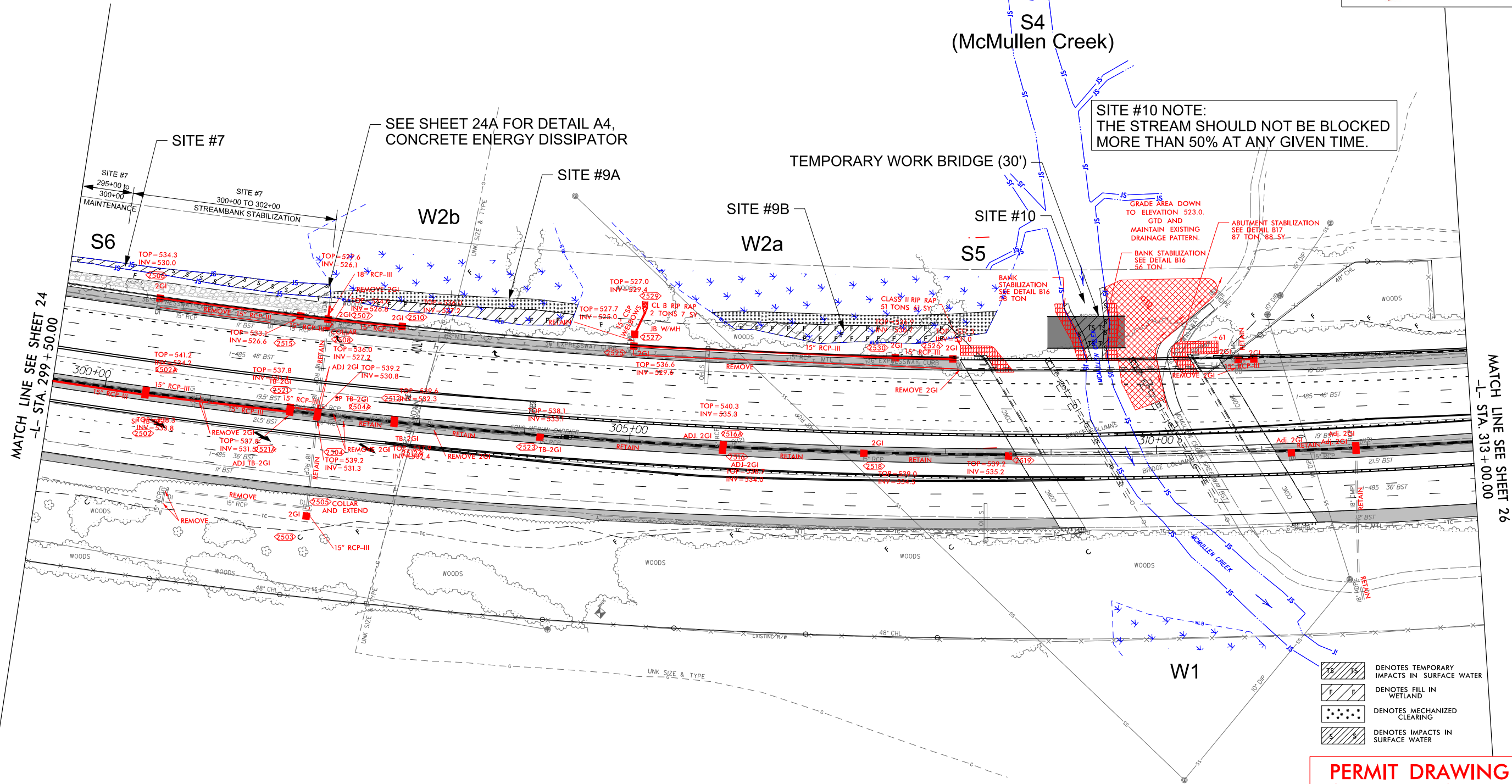
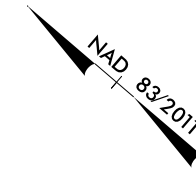


PERMIT DRAWING  
SHEET 21 OF 115

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GRAPHIC SCALE

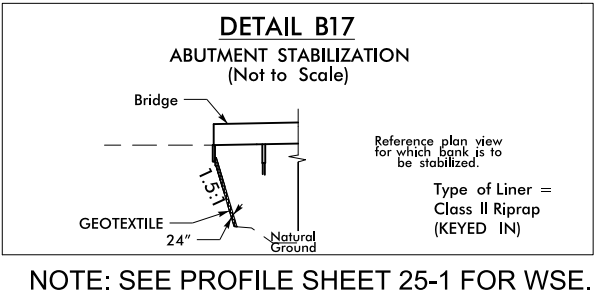
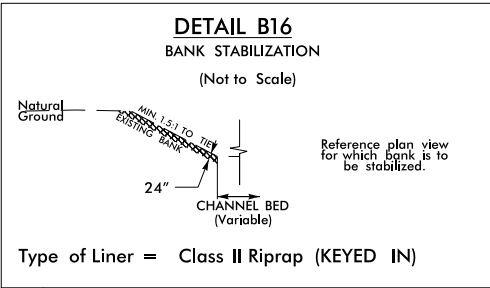


NOTE: SEE PROFILE SHEET 25-1 FOR WSE.

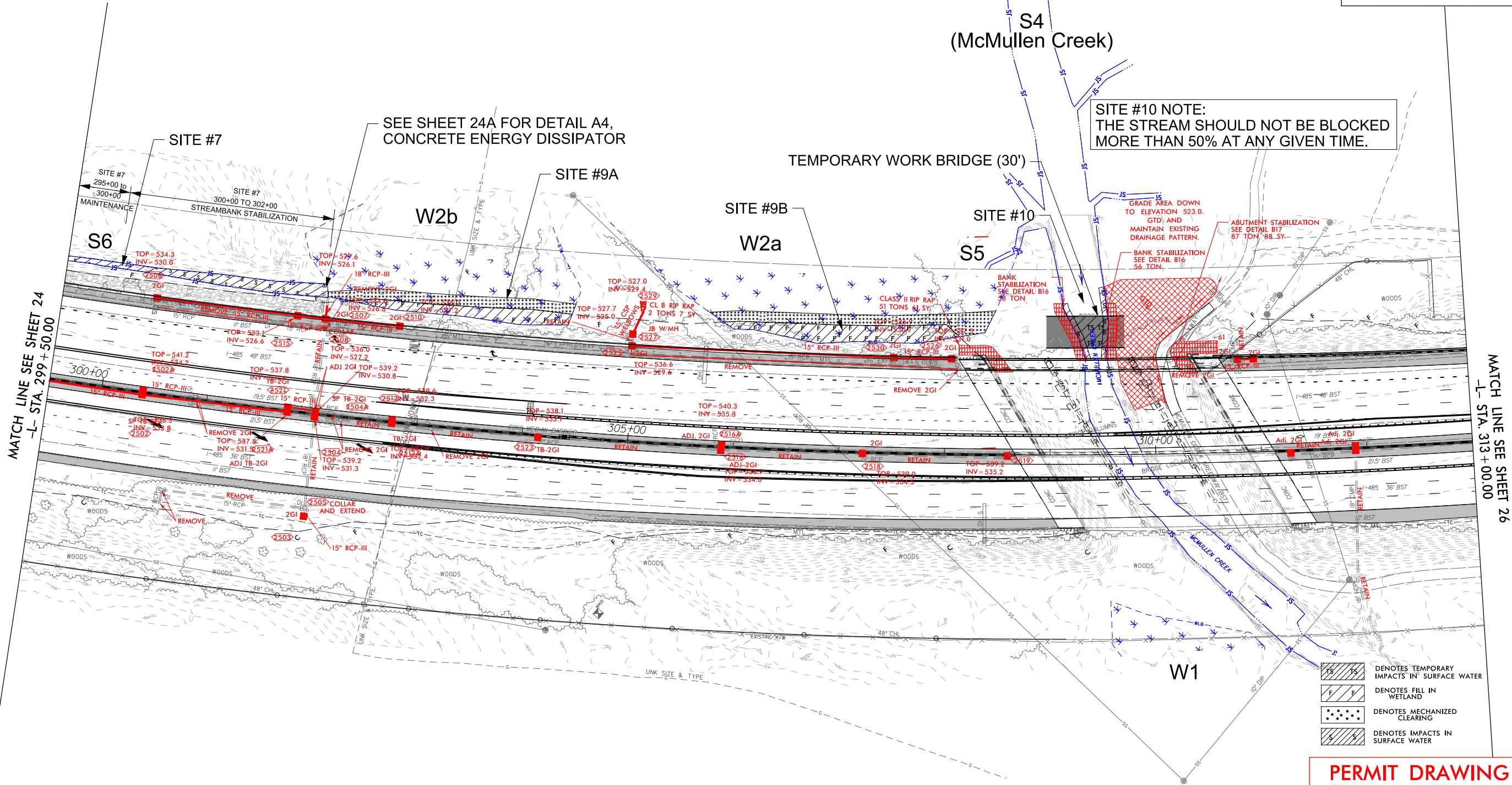




REVISIONS

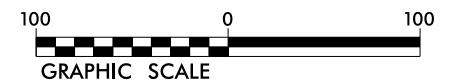


PROJECT REFERENCE NO.		SHEET NO.
L-5507		25
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER		






PERMIT DRAWING  
SHEET 73 OF 115

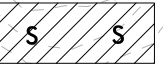
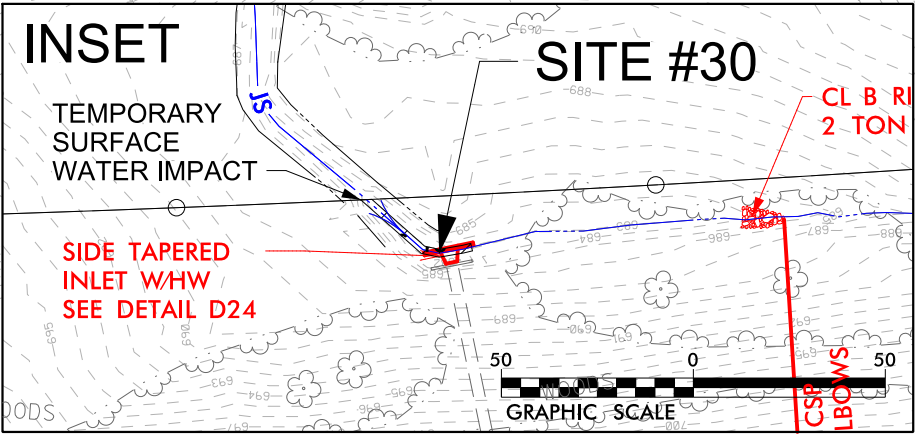
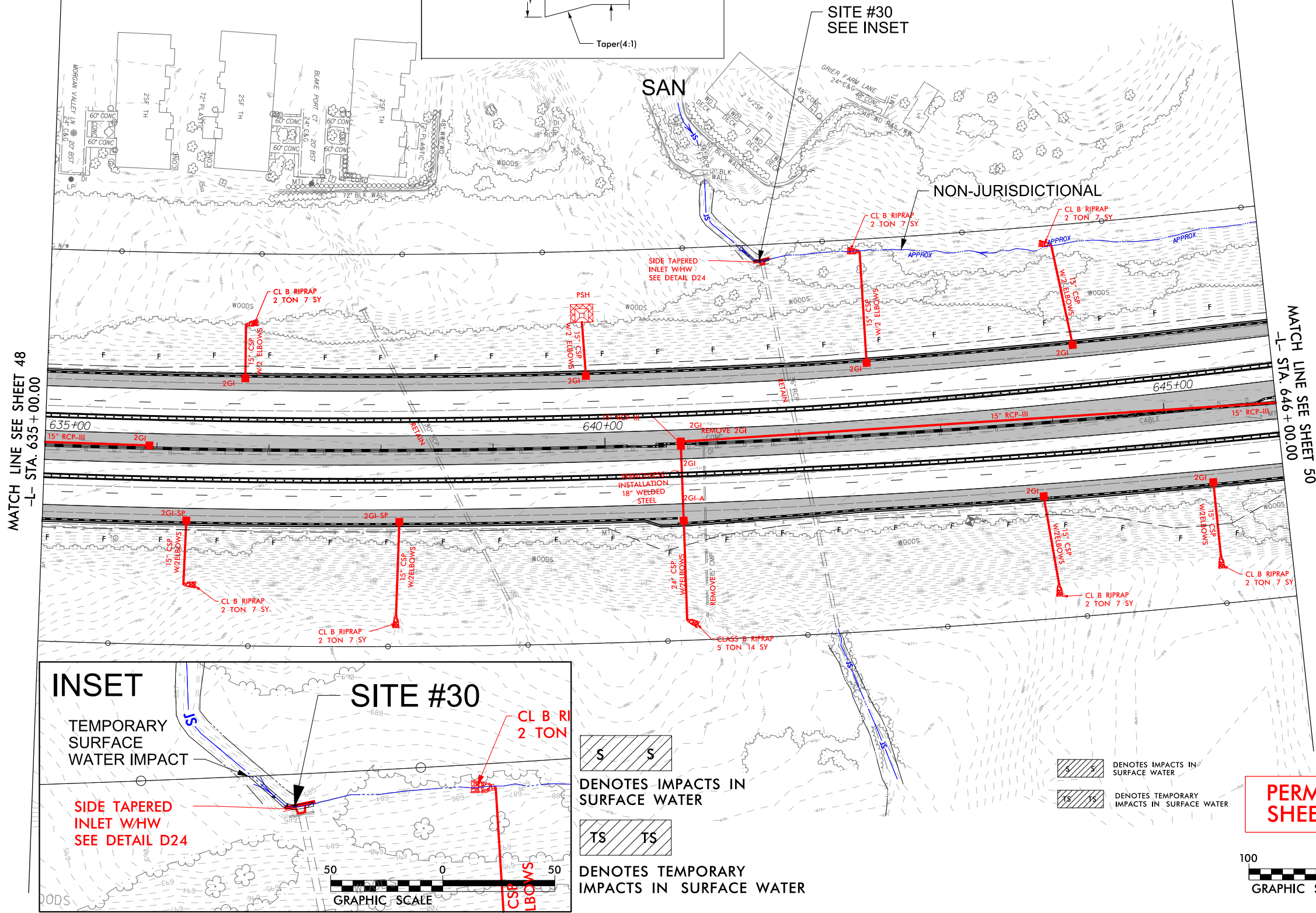
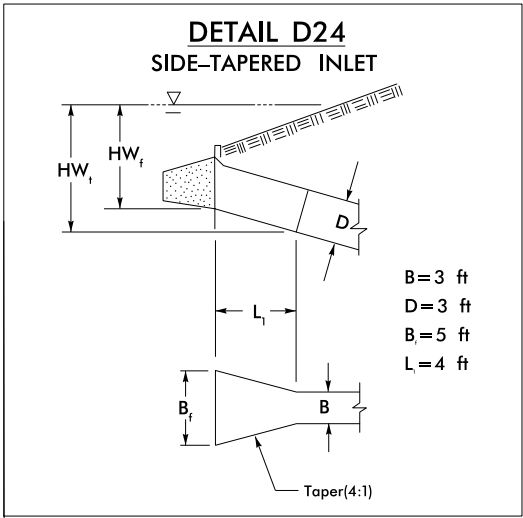


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REVISIONS

PROJECT REFERENCE NO.		SHEET NO.
I-5507		49
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
		



DENOTES IMPACTS IN SURFACE WATER



DENOTES TEMPORARY IMPACTS IN SURFACE WATER



DENOTES IMPACTS IN SURFACE WATER

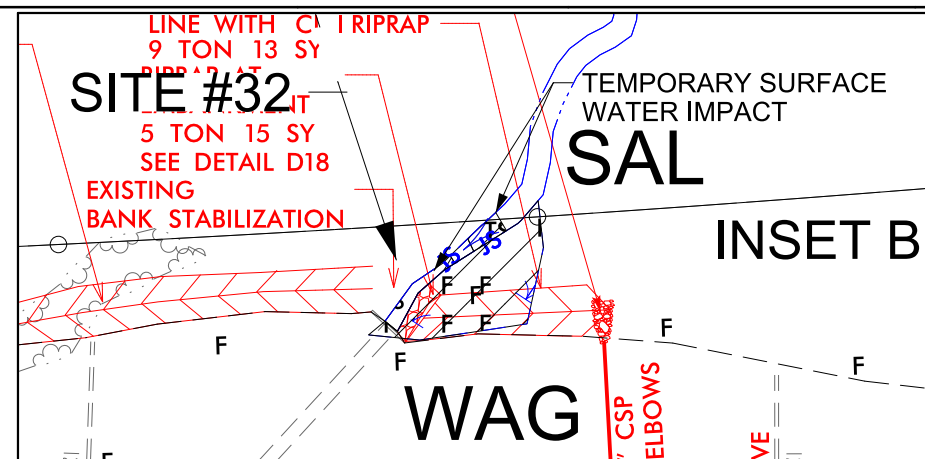
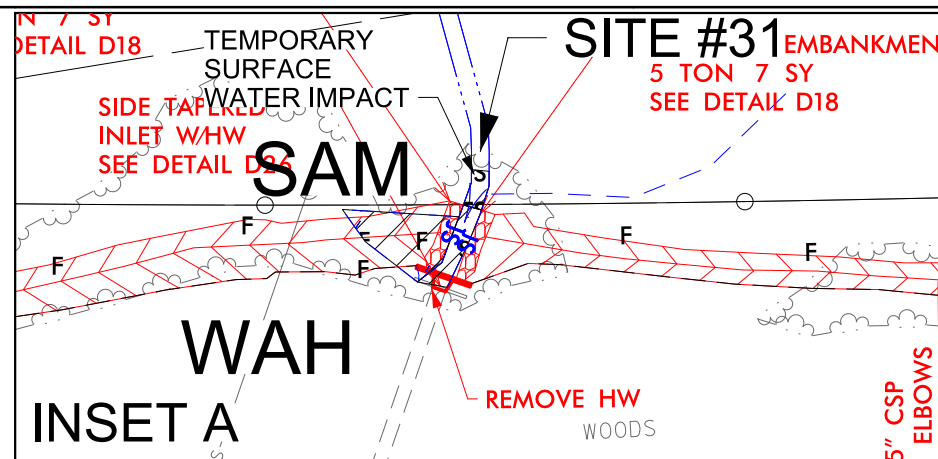


DENOTES TEMPORARY IMPACTS IN SURFACE WATER


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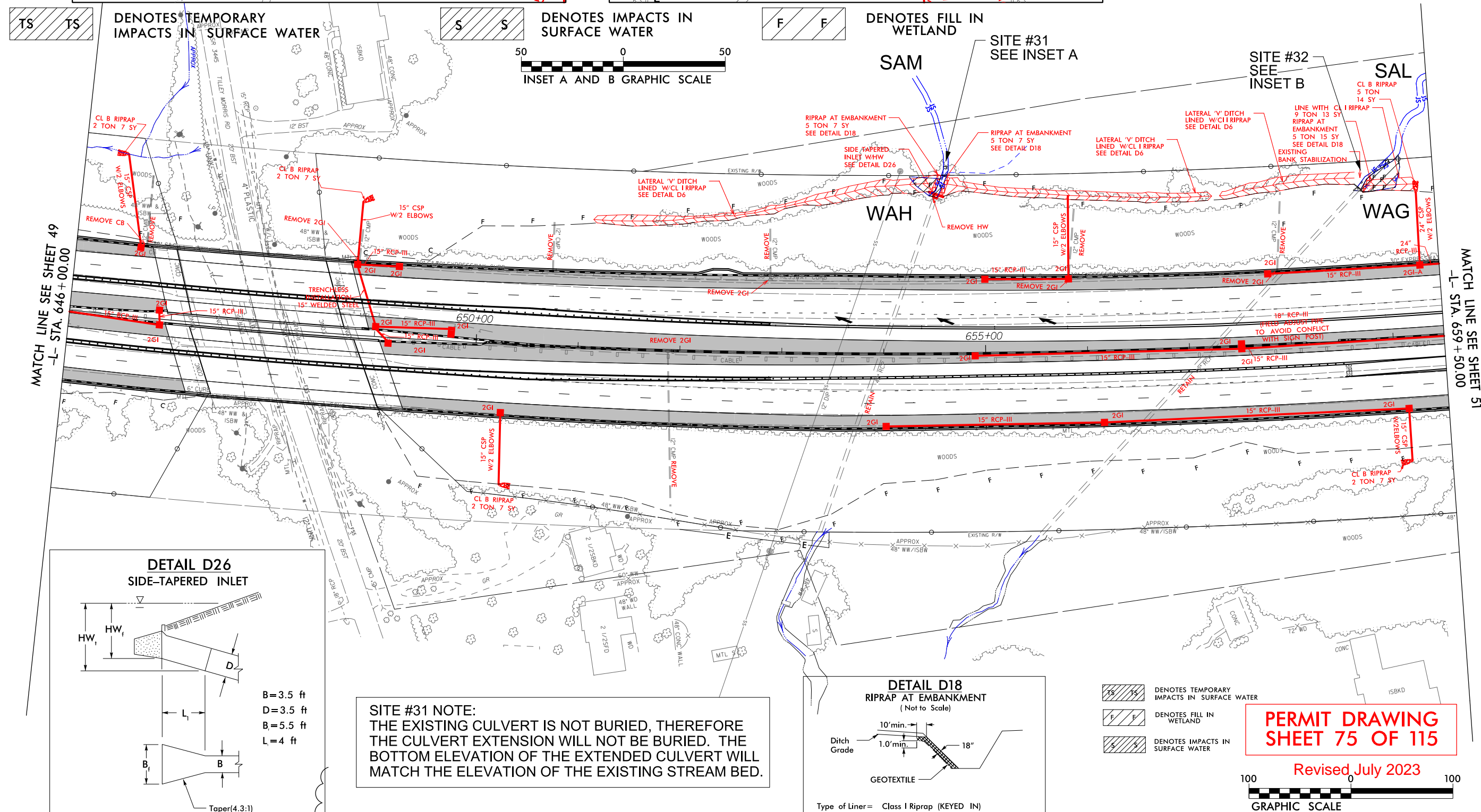
**PERMIT DRAWING**  
**SHEET 74 OF 115**





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NC LIC NO. F-0165

PROJECT REFERENCE NO.	SHEET NO.
I-5507	50
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>	
 <b>BLYTHE</b>	

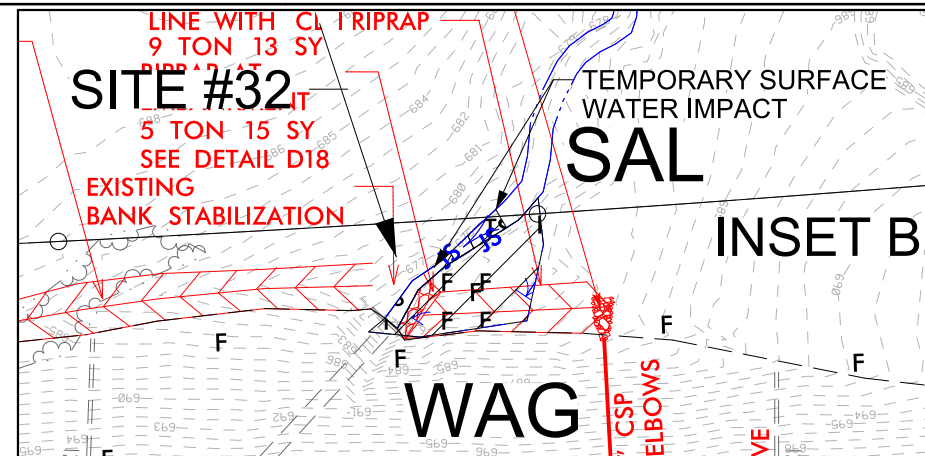
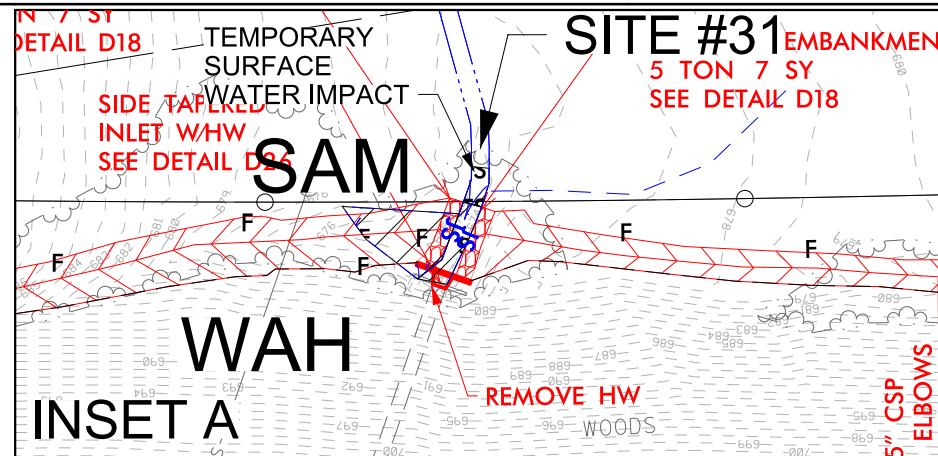


PERMIT DRAWING  
SHEET 75 OF 115


Revised July 2023

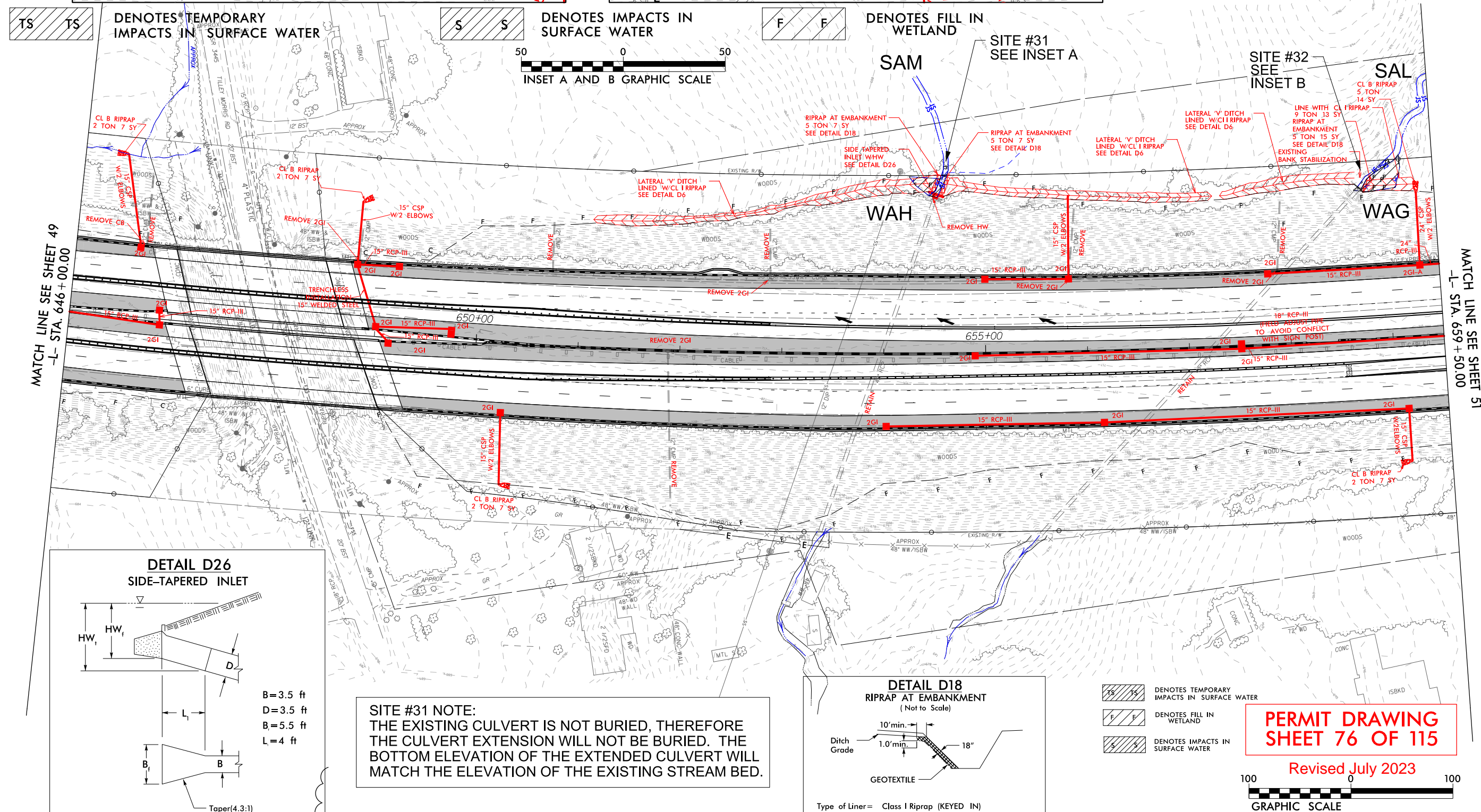
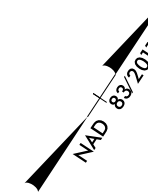
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GRAPHIC SCALE





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NC LIC NO. F-0165

PROJECT REFERENCE NO.	SHEET NO.
I-5507	50
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<p><b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b></p>	
	



**PERMIT DRAWING  
SHEET 76 OF 115**

**Revised July 2023**

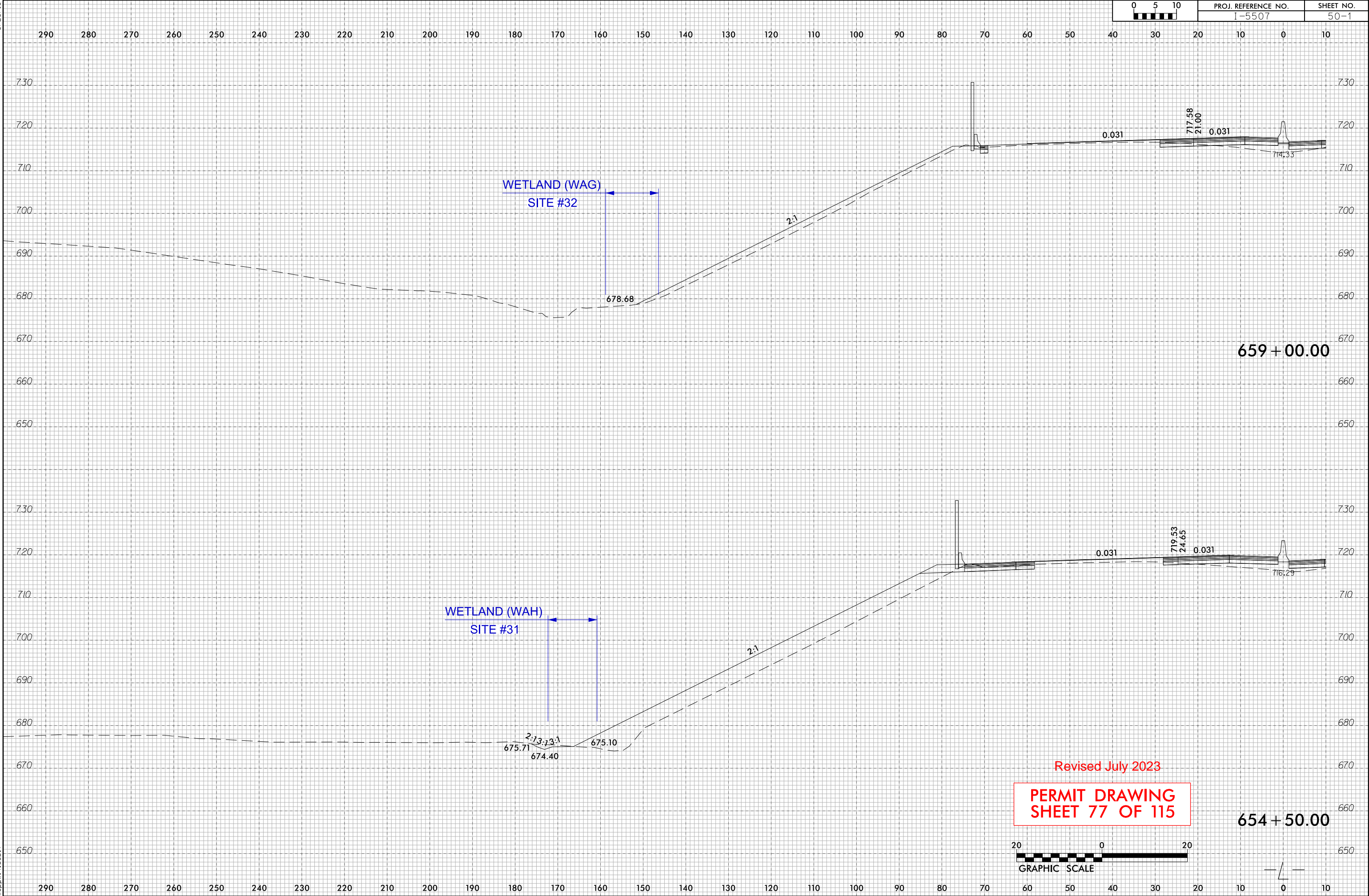
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**GRAPHIC SCALE**

6/23/16



PROJ. REFERENCE NO.	SHEET NO.
I-5507	50-1



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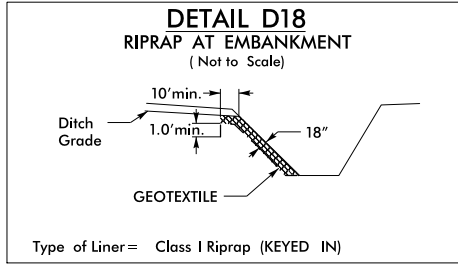
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REVISIONS

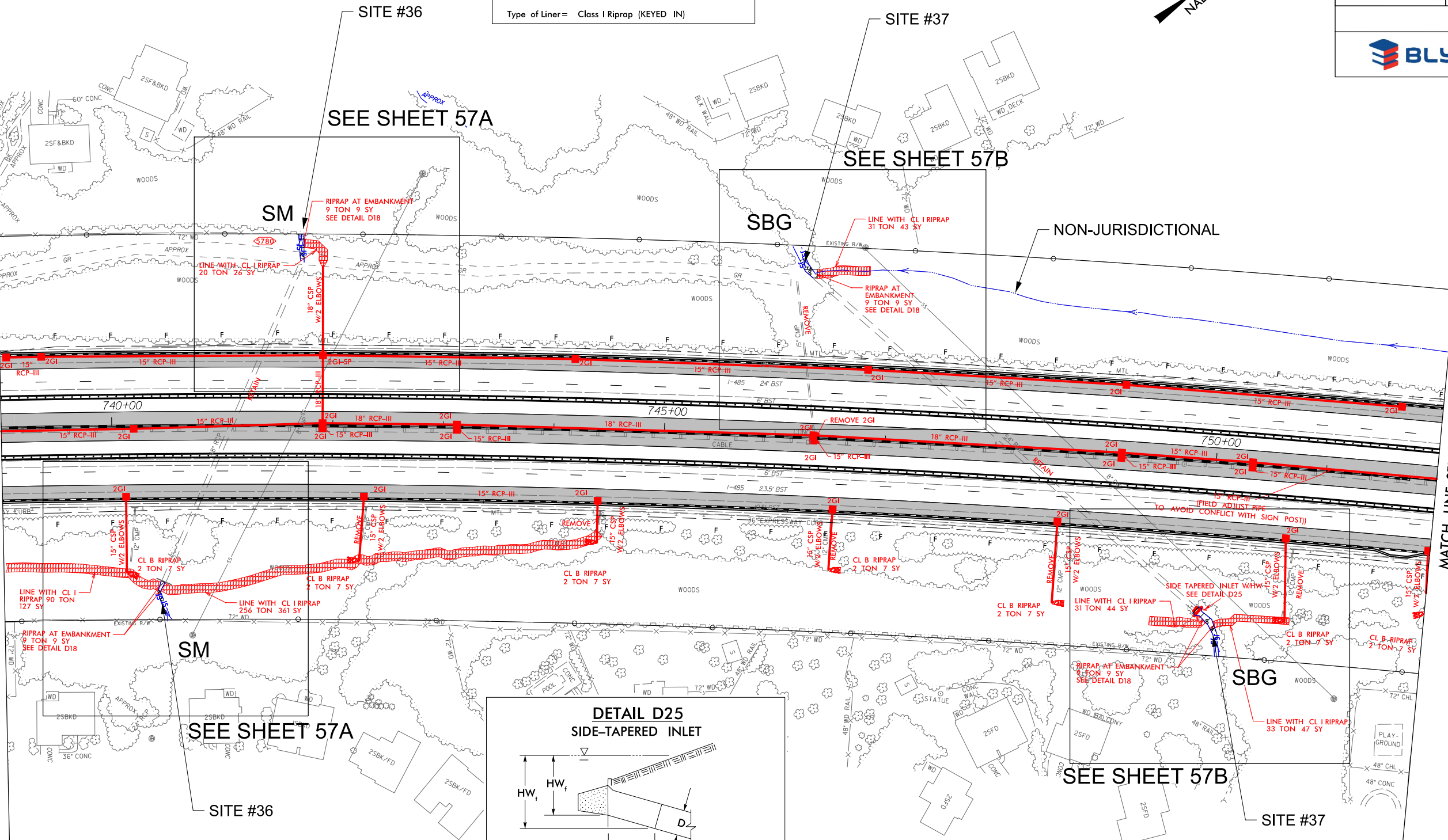
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NC LIC NO. F-0165

PROJECT REFERENCE NO.		SHEET NO.
I-5507		57
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
		



MATCH LINE SEE SHEET 56  
-L- STA. 739 + 00.00

MATCH LINE SEE SHEET 58  
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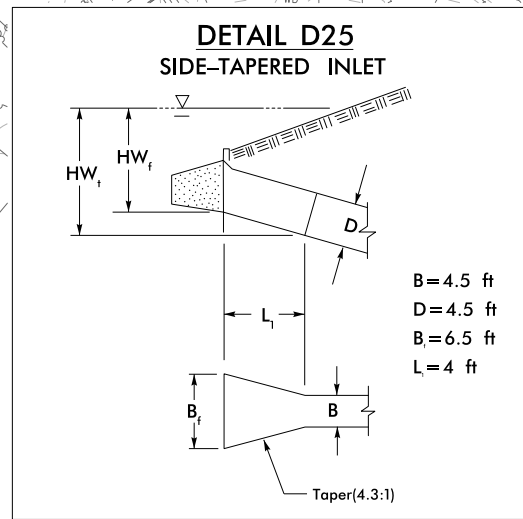
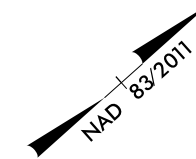


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**PERMIT DRAWING**  
**SHEET 84 OF 115**

5/5 DENOTES IMPACTS IN SURFACE WATER  
15/15 DENOTES TEMPORARY IMPACTS IN SURFACE WATER





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**PERMIT DRAWING  
SHEET 85 OF 115**






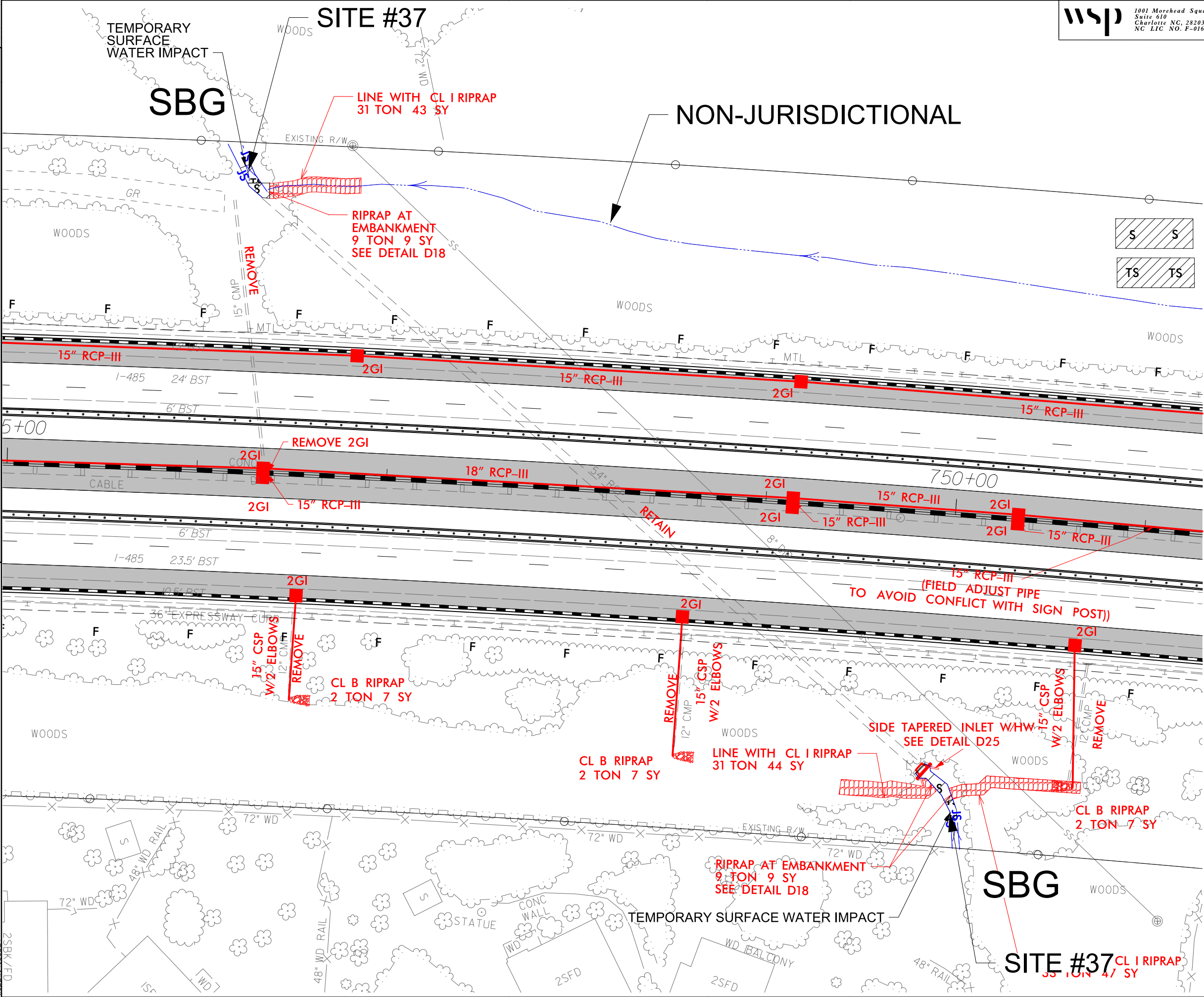
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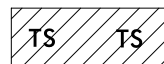
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1001 Morehead Square Dr.  
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Charlotte NC, 28203  
NC LIC NO. F-0165

PROJECT REFERENCE NO.		SHEET NO.
I-5507		57B
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER

 **BLYTHE**



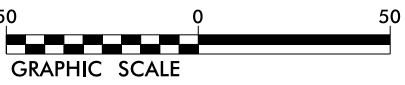
DENOTES IMPACTS IN SURFACE WATER

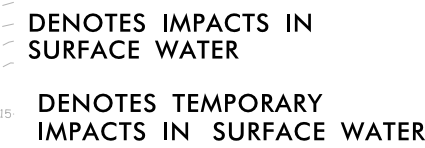


DENOTES TEMPORARY IMPACTS IN SURFACE WATER

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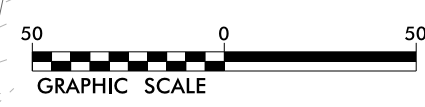
**PERMIT DRAWING  
SHEET 88 OF 115**





Revised July 2023

**PERMIT DRAWING  
SHEET 89 OF 115**





## WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	110+50 -L- RT	Riprap Fill						< 0.01		28		
1	110+50 -L- RT	Bank Stabilization						< 0.01	< 0.01	18	13	
2	129+00 - 130+00 -L- LT	Roadway Fill	0.08			0.02						
2A	128+50 -L- RT	Bank Stabilization						< 0.01	< 0.01	11	20	
3	132+00 -L- LT	Extend 4 @ 10'x8' RCBC						0.03		52		
3	132+00 LT	Bank Stabilization						0.02	< 0.01	70	16	
3	132+00 LT	Culvert Construction Activities							0.03			
4	132+00 - 134+00 -L- LT	Roadway Fill	0.02					< 0.01		159		
4	134+00 - 135+00 -L- LT	Channel Change	< 0.01					< 0.01		22		
5	137+40 - 142+25 -L- LT	Extend 48" RCP with Junction Box						0.05	< 0.01	444	10	
6	293+50 -L-	Bank Stabilization						< 0.01	< 0.01	48	10	
7	294+00 - 295+00 -L- LT	Riprap Fill						< 0.01		100		
7	295+00 - 300+00 -L- LT	Maintenance Bank Stabilization						0.02		500		
7	300+00 - 302+00 -L- LT	Bank Stabilization						0.04		200		
8	298+00 -L- LT	Concrete Energy Dissipator						< 0.01		7		
9A	302+00 - 308+50 LT	Roadway Fill	0.05			0.05						
9B	309+50 -L- LT	Roadway Fill	0.07			0.07						
10	309+50 -L- LT	Bank Stabilization at Temp. Bridge						0.01	0.01	65		
11	343+00 -L-	Bank Stabilization at Temp. Bridge						0.03	0.05	157		
11	343+00 -L-	Drill Shaft Installation							0.05			
12	344+50 - 346+50 -L- RT	Roadway Fill	0.13			< 0.01						
13	360+00 -L- LT	Bank Stabilization						< 0.01	< 0.01	8	20	
13	360+00 -L- RT	Extend 3@ 9'x9' RCBC						0.01		49		
13	360+50 -L- RT	Bank Stabilization						< 0.01	< 0.01	38	20	
13	360+50 -L- RT	Culvert Construction Activities							< 0.01			
TOTALS*:			0.35			0.15		0.25	0.17	1976	109	

\*Rounded totals are sum of actual impacts

### NOTES:

At Sites 3, 5, and 13, the existing culvert is not buried, therefore the culvert extension will not be buried. The bottom elevation of the extended culvert will match the elevation of the existing stream bed.

At Site 1, <0.01 ac (18 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

At Site 3, 0.02 ac (70 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

At Site 7, 0.07 ac (700 lf) of temporary impacts due to construction activities are included within the maintenance and bank stabilization impacts.

At Site 10, <0.01 ac (30 lf) of temporary impacts due to the temporary bridge are included within the bank stabilization impacts.

At Site 11, 0.03 ac (122 lf) of temporary impacts due to the temporary bridge and installation of the drilled shaft are included within the bank stabilization impacts.

At Site 13, <0.01 ac (38 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

Revised 7/10/2023

MECKLENBURG  
TIP NO. I-5507

WBS NO. 43609.3.2

## WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
14	363+50 -L- RT	Roadway Fill	0.10									
15	363+00 -L- LT	Bank Stabilization						< 0.01	< 0.01	18	20	
15	365+00 -L- RT	Extend 4@ 8'x9' RCBC						0.08		165		
15	365+00 -L- RT	Bank Stabilization						0.01	< 0.01	65	10	
15	365+00 -L- RT	Culvert Constuction Activities							< 0.01			
15A	395+80 -L- RT	Bank Stabilization						< 0.01	< 0.01	8	20	
16	404+50 -L- RT	Bank Stabilization						< 0.01	< 0.01	36	20	
17	408+50 -L- RT	Bank Stabilization						< 0.01	< 0.01	10	10	
18	454+50 -L- LT	Roadway Fill	< 0.01			0.04						
18	454+50 -L- LT	Riprap Outfall	< 0.01									
18	454+50 -L- LT	Bank Stabilization						< 0.01		13		
19	15+00 -Y23RPD- RT	Bank Stabilization						< 0.01	< 0.01	15	10	
20	488+30 -L- RT	Extend 6' x 5' RCBC						< 0.01		13		
20	488+30 -L- RT	Bank Stabilization				< 0.01		< 0.01	< 0.01	17	10	
20	488+80 -L- LT	Energy Dissipator Basin						< 0.01		35		
20	488+80 -L- LT	Extend 6' x 5' RCBC						0.01		21		
20	488+80 -L- LT	Bank Stabilization						< 0.01	< 0.01	17	12	
21	491+50 -L- LT	Bank Stabilization						< 0.01	< 0.01	13	10	
22	492+50 - 493+70 -L- LT	Channel Change						0.01	< 0.01	158	10	
22	494+00 -L- LT	Extend 48" RCP						< 0.01		11		
22	494+00 -L- LT	Bank Stabilization						< 0.01		15		
22	496+00 RT	Bank Stabilization						< 0.01	< 0.01	9	10	
24	545+30 -L- LT	JB and 36" RCP						< 0.01		6		
24	545+30 -L- LT	Bank Stabilization						< 0.01	< 0.01	22	10	
TOTALS*:			0.11			0.04		0.15	0.04	667	152	

\*Rounded totals are sum of actual impacts

### NOTES:

At Sites 15, 20, and 22, the existing culvert is not buried, therefore the culvert extension will not be buried. The bottom elevation of the extended culvert will match the elevation of the existing stream bed.

At Site 15, 0.02 ac (65 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

At Site 20, <0.01 ac (34 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

At Site 22, <0.01 ac (24 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

At Site 24, <0.01 ac (22 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

NC DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

Revised 7/10/2023

MECKLENBURG

TIP NO. I-5507

WBS NO. 43609.3.2

## WETLAND AND SURFACE WATER IMPACTS SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS				
			Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
25	561+80 - 565+00 -L- LT	Roadway Fill	0.02			0.04						
26	564+00 - 566+20 -L- RT	Roadway Fill				0.01						
27	578+50/579+30 -L-	Bank Stabilization	< 0.01					< 0.01	< 0.01	33	20	
28	586+70/588+00 -L-	Bank Stabilization						< 0.01	< 0.01	37	20	
29	612+00/615+00 -L-	Bank Stabilization						< 0.01	< 0.01	25	30	
30	641+50 -L- LT	Extend 36" RCP with Headwall						< 0.01	< 0.01	13	20	
31	654+50 -L- LT	Extend 42" RCP with Headwall						< 0.01		4		
31	654+50 -L- LT	Lateral Ditch/Stabilization	< 0.01					< 0.01	< 0.01	19	10	
32	658+70 -L- LT	Roadway Fill	0.02									
32	658+70 -L- LT	Bank Stabilization						< 0.01	< 0.01	15	24	
33	680+20 -L- LT	Bank Stabilization						< 0.01	< 0.01	7	10	
33	683+40 -L- LT	Bank Stabilization	< 0.01			< 0.01		< 0.01		33		
35	729+90 -L-	Bank Stabilization						< 0.01	< 0.01	50	42	
35	729+90 -L- LT	Class I Riprap	< 0.01			< 0.01						
36	740+50/741+50 -L-	Bank Stabilization						< 0.01	< 0.01	17	25	
37	746+30/750+00 -L-	Extend 54" RCP with Headwall								4		
37	746+30/750+00 -L-	Bank Stabilization						< 0.01	< 0.01	31	20	
37A	765+00 -L- LT	Bank Stabilization						< 0.01		13		
38	806+50 -L- RT	Bank Stabilization						< 0.01	< 0.01	26	10	
38	808+50 -L- LT	Bank Stabilization						< 0.01	< 0.01	6	20	
39	814+50/816+00 -L- LT	Bank Stabilization						< 0.01	< 0.01	13	10	
40	818+00 -L-	Bank Stabilization						< 0.01	< 0.01	16	24	
TOTALS*:			0.05			0.07		0.04	0.03	362	285	

\*Rounded totals are sum of actual impacts

### NOTES:

At Sites 31 and 41, the existing culvert is not buried, therefore the culvert extension will not be buried. The bottom elevation of the extended culvert will match the elevation of the existing stream bed.

At Site 31, <0.01 ac (20 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

At Site 41, <0.01 ac (33 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

Revised 7/10/2023

MECKLENBURG

TIP NO. I-5507

WBS NO. 43609.3.2

SHEET

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OF

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WETLAND AND SURACE WATER IMPACTS SUMMARY												
			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
41	890+50 -L-	Roadway Fill	0.02									
41	890+50 -L-	Extend 36" RCP						< 0.01		52		
41	890+50 -L-	Bank Stabilization						< 0.01	< 0.01	33	42	
42	894+00/895+70 -L-	Roadway Fill	0.03									
42	894+00/895+70 -L- RT	Extend 42" RCP						0.02		105		
42	894+00/895+70 -L- RT	Channel Change						< 0.01	< 0.01	20	12	
42	894+00/895+70 -L- LT	Bank Stabilization						< 0.01		20		
43	18+60 -Y19RPC- RT	Bank Stabilization						< 0.01	< 0.01	30	10	
44	28+50 -Y2-	Extend 3 @ 8'x9' RCBC						< 0.01		26		
44	28+50 -Y2-	Bank Stabilization						< 0.01	< 0.01	28	19	
44	28+50 -Y2-	Culvert Construction Activities							< 0.01			
	SHEET 1 SUBTOTALS*:		0.35			0.15		0.25	0.17	1976	109	
	SHEET 2 SUBTOTALS*:		0.11			0.04		0.15	0.04	667	152	
	SHEET 3 SUBTOTALS*:		0.05			0.07		0.04	0.03	362	285	
TOTALS*:			0.56			0.27		0.50	0.26	3319	629	

NOTES:

At Site 44, <0.01 ac (28 lf) of temporary impacts due to construction activities are included within the bank stabilization impacts.

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